THE UNITED STATES NAVY

MEDICAL RESIDENCIES & SPECIALTY COURSES

Dear Doctor:

I believe you will agree, after reading this brochure, that the Navy has a great deal to offer you and your family. The opportunity to serve your country and adequately provide for your loved ones while achieving your goal of professional development is well worth considering.

Having been associated personally with civilian medical education as well as our own Navy programs, I take great pride in the effectiveness of our training and in the caliber of medicine practiced in the Navy. As a result of our training program we are providing, and will continue to provide, the best medical support to the greatest Navy in the world.

Sincerely yours,

R. B. Brown
Vice Admiral, MC, USN
Surgeon General
and Chief, Bureau of Medicine
and Surgery

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INTRODUCTION

The Navy Medical Department offers qualified doctors of medicine the opportunity for fully accredited residency training in the specialty of their choice, while serving on active duty as a member of the Regular Corps. The majority of the training is provided in eight U.S. naval hospitals, with a ninth hospital offering a 2-year program in general practice. Most of these inservice residencies provide periods of assignments to outstanding civilian programs through affiliations which may be up to 6 months. Residency training in Aerospace Medicine, Occupational Medicine, and General Preventive Medicine, leading to certification by the American Board of Preventive Medicine is offered in other naval activities in combination with an academic year in a civilian institution. These programs, described in detail in this brochure, cover 23 specialties and sub-specialties.

In addition, the Navy utilizes outstanding civilian hospitals and medical centers for the remainder of the specialties and subspecialties, in which we do not have approved programs of our own.

Each year there are approximately 550 naval medical officers, or 14.5 percent of the Medical Corps, in professional training programs. Short of a national emergency which dictates immediate mobilization and personnel deployments, these officers are continued in training for the entire program leading to eligibility for American Specialty Board examinations, provided the individual desires to do so and satisfactory performance is maintained.

Naval medical officers are encouraged, but not required, to be trained also in a military medical specialty, such as Aerospace Medicine (Flight Surgeon), Submarine Medicine, Amphibious and Marine Corps Medicine, or to have experience with the Antarctic Research Expedition.

Naval medicine is a rewarding career, during which the individual is serving his country and at the same time is developing professionally. He and his family have the opportunity for travel and duty abroad as well as in the United States, and are immediately a part of the Navy family wherever he may be assigned. The medical officer and his dependents are entitled to medical care throughout his naval career and his financial future is assured through the retirement plan for career officers.

REVIEWED AND APPROVED 7 March 1966
(Date)

(BUMED Reviewing Official)

GENERAL ASPECTS OF TRAINING

Residency programs in the U.S. naval hospitals are all approved by the respective Residency Review Committees of the Council on Medical Education, American Medical Association. Generally, the full training program is available in the naval hospital; however, in a few instances the residents are assigned to a year in an affiliating civilian institution or to another naval hospital so that full training for American Board qualification is assured.

The hospitals operate emergency rooms, intensive care units, and outpatient clinics, in addition to providing general inpatient care. Medical responsibility covers not only servicemen and women but their dependents of all ages, and retired personnel and their dependents. There are no private patients; therefore all patients are available for teaching purposes. In addition to general medical care, special treatment facilities are available and all phases of modern medical practice are included. Clinical research is encouraged, and increased emphasis is being placed on this important phase of training.

The Chief of Service for each residency program is Board certified and he has been selected for his teaching ability. Other staff members are Board certified or Board qualified. Staff assignments are on a full-time basis and staff physicians are therefore available for consultation and assistance at all times. There is close rapport with civilian medical schools and centers, and practicing physicians in the vicinity of each naval hospital, which provides an excellent visiting staff. In many instances naval medical officers are appointed as faculty members of the medical schools, thereby enhancing the joint relationship. Through these associations, Navy residents attend clinics, conferences, ward rounds, and other teaching functions at the civilian medical centers.

Finally, of all the military services, the Navy is unique in having recently appointed a Technical Director of Medical Education and Clinical Research, who is an eminent medical educator, familiar with civilian practice, academic medicine, and military medicine. His primary duties are to coordinate and strengthen the training programs through continual monitoring and evaluating of the potential and utilization of personnel and facilities.

Naval residencies may begin at any time during the year. Every effort is made, however, to have medical officers report 1 July or as soon thereafter as possible. Delays do occur and in such cases the individual's training program and progression is phased to his actual reporting date.

A medical officer is assigned for the full period of formal training required for Board eligibility. Short of a national emergency, as previously noted, if his performance is satisfactory and he wishes to continue, he may expect to complete the full program, including the senior year level of responsibility.

Upon completion of formal training a medical officer may expect to be assigned to clinical practice in his specialty, in a naval medical facility other than that in which he trained. A few may be retained on the staff of the naval hospital. The reassignment is considered to be to the advantage of the trainee as it affords him an opportunity to put into practice the knowledge he has gained and to develop his capacity for making independent decisions and judgments.

It is also the policy of the Bureau of Medicine and Surgery to sponsor career medical officers who comply with existing directives, for their American Specialty Board examinations, including payment of examination fees and travel expenses. In this connection, the success of naval medical officers in these examinations equals and in some instances exceeds that of physicians who are trained in civilian medical institutions.

Additional information concerning these programs may be obtained by writing to the Chief, Bureau of Medicine and Surgery, Department of the Navy, Washington, D.C., 20390

ANESTHESIOLOGY

The Navy's anesthesiology residences have all been extended to 3 years of formal training, the third year being devoted to advanced training and research. Residents not desiring to participate in the third year may complete only the 2-year program, but participation in the advanced phase is encouraged and is arranged on an individual basis.

The 2-year basic training program provides experience with all types of anesthetic agents and equipment, preoperative evaluation of patients, postoperative followup and didactic lectures in the basic sciences. There is planned progression for the residents from simple to complicated techniques, and from the care of healthy to poor-risk patients. Close supervision is exercised during the first year, and the second year permits a certain degree of independence but with the staff available for advice and consultation.

Thirteen first-year residents enter the training program each year. The total in training, including those at the third-year level, is planned as 38.

The training is provided in the following naval hospitals:

Hospital	Total anesthetics	Consultations on nonsurgical patients
Bethesda, Md.	10,221	137
Affiliations: Grace-New Haven Hospital, New Haven, Conn., 1 month, obstetrical anesthesia, 1st year.		
Chelsea, Mass.	2,842	101
Affiliations: Children's Hospital Medical Center, 3 months, intensive pediatric anesthesia, 2d year; New England Deaconess Hospital, 2 months, geriatric and open heart anesthesia, 2d year; Boston Lying-In Hospital, 1 month, obstetrical anesthesia, 2d year.		
Oakland, Calif.	4,553	82
Affiliations: University of California Medical Center, 1 month, cardiopulmonary bypass, 2d year; Children's Hospital of East Bay, 1 month pediatric anesthesia, 2d year.		
Philadelphia, Pa.	3,532	30
Affiliations: Children's Hospital of Philadelphia, 2 months, pediatric anesthesia, 2d year; Hospital of the University of Pennsylvania, 1 month, obstetrical anesthesia, 1st year; Temple University Hospital, 2 months, emergency and traumatic anesthesia, 2d year; U.S. Naval Hospital, Bethesda, Md., 2 months, cardiothoracic procedures, 2d year.		
San Diego, Calif.	8,780	100
Affiliations: Children's Hospital, San Diego, 1 month, pediatric anesthesia, 2d year.		
St. Albans, N.Y.	2,783	20
Affiliations: Columbia Presbyterian Medical Center, New York City, 2 months, obstetrical and pediatric anesthesia, 2d year.		

CARDIOVASCULAR DISEASE

	Naval hospitals	
	Bethesda, Md.	San Diego, Calif.
Electrocardiograms	12,401	24,023
Cardiac Consultations	5,382	2,220
Other Special Tests (including Vector Cardiograms, Phonocardiograms and Stress Cardiograms)	279	1,056
Open Heart Operations	34	42
Closed Heart Operations	96	55
Cardiac Catheterizations	225	88

These are 1-year programs, during which emphasis is placed upon diagnosis and management of congenital and acquired cardiovascular disease, laboratory diagnostic procedures, selection of patients for cardiovascular surgery, pre- and postoperative care of surgical cardiac pa-

tients, and such special procedures as cardiac catheterizations, ventilatory function, cardiac monitoring, phonocardiograms and spatial vectocardiography. Independent clinical research is encouraged.

The programs are presently limited to one resident in each program for a total of two.

DERMATOLOGY

The two residencies in this specialty are at the U.S. Naval Hospitals, Philadelphia, Pa., and San Diego, Calif. The program at Philadelphia consists of 2 years at the naval hospital and 1 year in a civilian university hospital, generally at the Graduate School and Hospital of the University of Pennsylvania, under Navy sponsorship. Such assignment may be either at the second- or third-year level. At San Diego, the program is for the full 3 years, with the basic sciences integrated throughout.

The dermatology service at each of the naval hospitals has its own laboratory, operating rooms and facilities for complete X-ray and ultraviolet diagnosis and treatment. Residents rotate between the clinic and ward services. They are permitted increasing individual responsibility in the management of patients as their capabilities develop. Experience in plastic surgery procedures is provided, and research is encouraged.

Annual patient statistics in the naval hospitals are as follows:

Naval hospital	Inpatients treated	Outpatients treated
Philadelphia, Pa.	285	10,000
San Diego, Calif.	337	20,132

The input of Navy residents each year is approximately 6, with a total in training, both in-service and outservice of 18. Residents occasionally are permitted to spend a year of additional training at the Armed Forces Institute of Pathology, Washington, D.C., if their clinical services can be spared.

GASTROENTEROLOGY

This specialized training is available only at the U.S. Naval Hospital, Philadelphia, Pa. It is a 1-year residency, followed by 2 years of supervised practice. Gastroenterological diagnoses average around 1,000 each year. There are 60 beds devoted to the service, a gastric analysis laboratory, a gastroscopy and special procedures clinic and a clinic two afternoons a week for outpatients. The formal residency includes the 4 months' basic science course at the Graduate School of the University of Pennsylvania and the resident spends 1 day weekly for 3 months at the Fels Research Institute of Temple University for training in special procedures and research.

Planned input into this program is one each year.

GENERAL PRACTICE

The Navy's residency training program in this specialty is at the U.S. Naval Hospital, Jacksonville, Fla. It is a 2-year residency, divided as follows:

FIRST YEAR:

3 months, general medicine;
2 months, cardiorenal medicine;
1 month, contagion and dermatology;
2 months, neuropsychiatry;
3 months, pediatrics;
1 month, elective.

SECOND YEAR:

6 months, general surgery;
3 months, surgical specialties (1 month orthopaedics; 1 month of combined ophthalmology and otolaryngology; 1 month of mornings on anesthesiology and afternoons on urology);
3 months, obstetrics and gynecology.

There are nine interns assigned to this hospital and no other residents. The planned annual input of first year residents is three, with a total of six in the program. The clinical material available for the teaching program is:

Average daily census 378
Admissions, including transfers ... 10,678
Outpatient visits 168,095

The residents are provided ample training and experience on the wards, in the clinics and the

operating rooms in all phases of their training, to the extent that they are able to handle a variety of medical and surgical problems independently. Officers completing this training are qualified for selected duty assignments such as that with the Anglo-American Hospital in Villefranche, France.

INTERNAL MEDICINE

Three full years of formal training in general medicine are provided. This includes experience in inhalation therapy, radioisotope technics, cardiac catheterization, clinical and tissue pathology, pulmonary function, dermatology, radiology, pediatrics, neurology, and psychiatry. Research is encouraged. Advanced training at the fourth-year level is also available to selected medical officers in the sub-specialties of cardiovascular disease, gastroenterology and pulmonary disease.

The teaching hospitals with programs in this specialty are:

Hospital	Average daily census	Admissions including transfers	Outpatient visits
Bethesda, Md.	144	2,558	39,304
Chelsea, Mass.	79	1,646	14,940
Great Lakes, Ill. ...	209	4,026	29,946
Oakland, Calif.	129	2,916	70,118
Philadelphia, Pa. ...	200	3,206	24,192
Portsmouth, Va. ...	219	4,077	67,839
San Diego, Calif....	610	8,142	76,654
St. Albans, N.Y.	129	3,206	48,441

The medical residents at Great Lakes spend 3 months during the second year at the Veterans Administration Hospital, Wood (Milwaukee), Wis., for intensive study in hematology; those at Philadelphia are assigned during their second or third year to the Jefferson Medical College for 3 months of hematology and to the Philadelphia General Hospital for 3 months of clinical neurology; San Diego residents spend 3 months on a part-time basis during the third year at the Scripps Clinic and Research Foundation, La Jolla, Calif., for training in gastroenterology and those from St. Albans are assigned late in their first year or early in their second year to St. Francis Hospital, Roslyn, N.Y., for a period of 4 months, full-time, in congenital and acquired valvular heart disease.

During the first 2 years the resident serves under the direct supervision of a member of the staff. During the third year he spends several months as senior resident and the remainder of the time in the various specialized departments of the hospital which are related to medicine. A total of 60 residents are assigned to these programs, with an annual input of 20.

After completion of the 3-year residency and the Part I examination of the American Board of Internal Medicine, a naval medical officer may be considered for advanced training in one of the subspecialties of internal medicine as listed.

NEUROSURGERY

Application for training in neurosurgery is made for the full 5-year program, which includes 1 year of general surgery in a naval hospital followed by 4 years of neurosurgery in a civilian institution under Navy sponsorship. Those selected will be assigned to one of the eight naval hospitals approved for training in general surgery for the preliminary year, and are authorized to make tentative arrangements with the AMA approved civilian training program of their choice for the 4 years of sponsored training. No definite commitment with the civilian institution should be made, however, as final arrangements are completed by the Bureau of Medicine and Surgery. Those who already have a tentative acceptance from a civilian institution at the time of application may so indicate. In either case, final arrangements will be made by the Bureau. Only one or two medical officers are assigned to this training program each year, depending upon the needs of the Navy.

OBSTETRICS AND GYNECOLOGY

There are 8 training programs in this specialty, to which a total of 42 Navy residents are assigned. The planned annual input of first-year residents is 14. The hospitals, with pertinent statistics, are:

Naval hospital	Average daily census	Admissions	Number of births	Outpatient visits
Bethesda, Md.	37	2,554	1,485	24,584
Chelsea, Mass.	23	1,620	1,033	16,829
Affiliation: Free Hospital for Women, Brookline, Mass., 3 months, obstetrics and gynecology pathology, 1st or 2d year.				
Great Lakes, Ill.	30	2,258	1,317	24,042
Oakland, Calif.	36	3,008	1,937	37,531
Philadelphia, Pa.	46	2,326	1,487	23,578
Affiliation: University of Pennsylvania Hospital, 3 months, part-time in obstetrics and gynecology pathology, 2d year.				
Portsmouth, Va.	78	6,816	4,592	51,694
San Diego, Calif.	66	5,978	3,380	61,957
St. Albans, N.Y.	34	2,039	1,131	15,790
Affiliation (optional): Long Island Jewish Hospital, 1 afternoon a week for 14 weeks, pathology, 3d year.				

The programs provide for rotation between the obstetrical and gynecological wards and clinics, operating room experience, and pathological studies. Graduated responsibility is afforded to the extent that the senior resident exercises independent skills and judgment, in consultation with the Chief of Service and staff members, is responsible for teaching junior residents, is in charge of detailing personnel, and acts as supervisor and consultant on all complicated and difficult cases. The total training period is of 3 years' duration.

OPHTHALMOLOGY

A total of 24 Navy medical officers are in training in this specialty, in the following teaching hospitals, for the 3 years required by the American Board:

Naval hospital	Average daily census	Admissions	Outpatient visits
Bethesda, Md.	16	641	9,516
Affiliation: Washington Hospital Center (part-time)			
Oakland, Calif.	18	420	16,561
Affiliation: University of California Medical Center, 4 months, basic sciences and clinical work			
Philadelphia, Pa.	24	306	15,484
Affiliation: Wills Eye Hospital (Retina Service), 3 months, 2d year; 3 months, 3d year; U.S. Naval Hospital, Portsmouth, Va., 1 month, ocular surgery, 2d or 3d year			
San Diego, Calif.	38	788	33,167

With an input each year of eight first-year residents, the competition for these residencies has been more keen than in any other of the specialties.

Training is balanced between inpatient and outpatient care, medical and surgical training, departmental and consultant instruction. As the resident progresses, he assumes full responsibility for inpatient care and gradually assumes outpatient care in addition. Surgical training is started in the first year with simple procedures and proceeds to major intra- and extra-ocular surgery with a minimum amount of supervision. During the first year residents enroll in the Home Study Course of the American Academy of Ophthalmology. During the first or second year they may attend the Ophthalmic Pathology Course at the Armed Forces Institute of Pathology, Washington, D.C., and during the third year they may apply for the Lancaster Course in Ophthalmology which is given at Colby College, Waterville, Maine. Assignment to this course is dependent on availability of funds for travel and per diem orders.

ORTHOPAEDIC SURGERY

This residency consists of 3 years of training in a naval hospital and 1 year of children's orthopaedics in a civilian institution through affiliation.

The 3 years in a naval hospital include experience in the diagnosis and management of orthopaedic conditions of both traumatic and nontraumatic nature. In addition experience is afforded in general surgery, neurosurgery, plastic surgery, hand surgery, pathology, and the basic sciences. Oakland and Philadelphia are amputee centers and residents assigned to these hospitals spend 3 to 6 months on this service. When possible, residents from all of the hospitals are assigned to the course in orthopaedic pathology given at the Armed Forces Institute of Pathology.

After an initial period under close supervision by the teaching staff, the residents are permitted increasing independence in judgment, in operative and teaching experience, and in administrative responsibility, to the level of senior resident prior to entering their children's work.

A total of 26 residents are in training in these programs, including those in the affiliated civilian hospitals. The input of first-year residents each year is nine.

Naval hospital	Average daily census	Admissions	Outpatient visits
Bethesda, Md.	103	1,004	11,628
Chelsea, Mass.	89	1,004	9,324
Oakland, Calif.	149	1,596	17,271
Philadelphia, Pa.	150	1,231	9,198
Portsmouth, Va.	260	2,295	29,492

Civilian affiliated hospitals:

The James Kernan Hospital for Crippled Children, Baltimore, Md.

St. Charles Hospital, Brooklyn, N. Y.

Orthopaedic Hospital, Los Angeles, Calif.

Orange Memorial Hospital, Orlando, Fla.

Indiana University Medical Center, Indianapolis, Ind.

Alfred I. Dupont Institute, Wilmington, Del.

Boldgett Memorial Hospital, Grand Rapids, Mich.

Duke University Medical Center, Durham, N.C.

OTOLARYNGOLOGY

The Navy's training program in this specialty is 4 years in duration, consisting of 1 year of general surgery and 3 years of otolaryngology. In certain instances a resident may be assigned to an approved program in another naval hospital for the year of general surgery prior to entering his program in otolaryngology. The year of general surgery includes rotation through the subspecialties of plastic surgery, neurosurgery, and oral surgery. The otolaryngology program covers all phases of disease of the ear, nose, throat, and peroral endoscopy. Experience is provided in stapes surgery, tympanoplasty, laryngectomy, neck dissection, surgery of the salivary glands and maxillo-facial surgery of all types. Responsibility for patient care, teaching, and surgical procedures is increased with professional development and level of training.

The input of first-year residents into the following residency programs is limited to 6 with a total of 24 in the 4-year program.

Naval hospital	Average daily census	Admissions	Outpatient visits
Bethesda, Md.	33	1,086	9,913
Oakland, Calif.	28	300	9,415
Philadelphia, Pa.	32	889	9,461
San Diego, Calif.	36	1,050	15,065

PATHOLOGY

Navy pathology residencies consist of 2 years of clinical pathology and 2 years of pathologic anatomy, in preparation for full certification by the American Board of Pathology. There are five such programs, each of which provides well-rounded training.

Naval hospital	Number of autopsies	Total number laboratory examinations	Number surgical specimens	Percent autopsies
Bethesda, Md.	273	780,506	7,185	87
Oakland, Calif.	171	382,214	6,511	87
Philadelphia, Pa.	270	425,356	5,132	63
San Diego, Calif.	509	1,267,075	13,190	70
St. Albans, N.Y.	148	492,659	5,851	65

The program in clinical pathology includes training in hematology and blood bank, endocrinology, chemistry (including clinical microscopy), serology, bacteriology, clinical parasitology and radioisotope techniques. It encompasses theoretical and practical instruction in techniques, uses, and interpretation of all commonly employed laboratory examinations. The resident is given increasing responsibility for the clinical laboratory as he progresses. The 2 years in anatomic pathology provide 12 months of experience in necropsy pathology and 12 months of surgical pathology. The residents receive closely supervised instruction in all phases of anatomic pathology, which includes the actual performance of post-mortem examinations and all steps in processing and examining tissues. Similar supervised training is provided in all phases of surgical pathology. The wide variety of source material assures that there are no deficiencies of any type of case.

A total of 32 residents are in training in the 5 programs, with an annual input of 8 first-year residents.

PEDIATRICS

A recent increase in the number of training billets in this specialty permits an input of 14 first-year residents each year. The program is of 2 years' duration, resulting in a total of 28 in training at all times, in the 6 naval hospitals listed.

Naval hospital	Average daily census	Newborn and premature	Admissions	Outpatient visits
Bethesda, Md.	22	18	1,207	17,861
Chelsea, Mass.	16	14	926	22,972
Oakland, Calif.	21	18	1,564	46,999
Philadelphia, Pa.	19	22	2,540	44,599
Portsmouth, Va.	39	40	2,154	47,103
San Diego, Calif.	38	29	2,261	52,457

The programs are designed to provide training in general medical and surgical pediatrics of an acute and chronic nature, care of newborn infants, preventive pediatrics and health supervision, nutrition, and conditions of psychological origin. Each resident is supervised in the wards, nurseries, and outpatient clinics, and as his proficiency progresses he is permitted more independent action and responsibility. Research is encouraged.

Complete facilities are available for all types of pediatric cases, including isolation, intensive care, prematures, and well baby clinics. There is a wealth of clinical material available to provide well-rounded training in all aspects of pediatrics. In addition, residents at Bethesda spend 2 months at D.C. Children's Hospital for special training in pediatric cardiology and neurology; those from Chelsea spend 3 months at Boston City Hospital and 3 months at Children's Hospital Medical Center; from Oakland they attend clinics, conferences, and rounds at Stanford, University of California, East Bay Children's Hospital, Presbyterian Hospital of San Francisco, and the Northern California Clinic for Cerebral Palsy, throughout the residency; residents from Philadelphia spend 6 months at the Children's Hospital of Philadelphia; those from San Diego spend 2 months at Los Angeles County General Hospital for experience in contagious diseases, and those from Portsmouth are assigned for 3 months of subspecialty training at the University of North Carolina, Chapel Hill.

PLASTIC SURGERY

Both inservice and outservice facilities are utilized for training in plastic surgery. The inservice program is at the U.S. Naval Hospital, Bethesda, Md., and consists of 1 year at the

Naval Hospital and a second year at Georgetown University Hospital, Washington, D.C. One resident enters this program each year. Additional trainees, as required, are assigned to outstanding civilian programs such as Barnes Hospital, St. Louis, for the 2 years.

The competition for these residencies is quite keen and the majority of those selected are fully trained in general surgery. Completion of 3 years of general surgery prior to entering this advanced training is mandatory.

The case material available at the Bethesda Naval Hospital during the 1 year of training offered is of a greatly diversified nature, embracing all of the facets of the specialty. Admissions to the service average 450 to 500 per year and 4,500 to 5,000 outpatients visits are handled annually by the plastic surgery clinic. From 550 to 600 major surgical procedures are carried out in the main operating rooms and from 500 to 550 cases are performed in the minor surgical operating room. The resident's operative experience and patient responsibility increases with his demonstrated proficiency.

PREVENTIVE MEDICINE — AEROSPACE MEDICINE

This program is of 3 years' duration. The first year (academic) is devoted to graduate study in preventive medicine in an accredited school of public health, leading to the degree, master of public health. The second and third years are spent at the U.S. Naval Aerospace Medical Institute, Pensacola, Fla. or affiliated sites, rotating through the various clinical, didactic, and research portions of the program. Research oriented residents may serve up to 6 months in an affiliated program at the Aerospace Medical Research Department (AMRD), Johnsville, Pa., or the Aerospace Crew Equipment Laboratory (ACEL), Philadelphia, Pa.

Residents are selected from naval flight surgeons who have completed at least one tour of operational duty after graduation from the 6 months' course in aerospace medicine at the Aerospace Medical Institute. Through the residency they become expert in flight personnel selection and maintenance, in human factors in aerospace systems, design, and in other aspects of preventive medicine as it applies to aviation. Successful completion leads to eligibility for examination by the American Board of Preventive Medicine for certification in aerospace medicine.

Planned input of residents is 6 each year for a total of 18 under instruction.

PREVENTIVE MEDICINE — GENERAL PREVENTIVE MEDICINE

Three 2-year inservice residency programs in general preventive medicine have been developed. These are at the second- and third-year levels, and follow 1 year of training in a civilian institution under Navy sponsorship. The programs are as follows:

The U.S. Navy Preventive Medicine Unit Number 2, U.S. Naval Base, Norfolk, Va., whose mission is to provide specialized investigative consultation, advice, and recommendations in matters of preventive medicine and environmental health to naval shore activities and fleet units of the operating forces of the Navy in the areas assigned;

The U.S. Navy Preventive Medicine Unit Number 5, U.S. Naval Hospital, San Diego, Calif., whose mission is to provide specialized investigative advice and consultation, and recommendations in matters of preventive medicine and environmental health to naval shore activities and fleet units of the operating forces of the Navy in the areas assigned;

The U.S. Naval Medical Research Unit Number 4, U.S. Naval Hospital, Great Lakes, Ill., whose mission is to conduct basic research in biomedical sciences, provide essential epidemiological information on diseases and medical problems of military significance, recommend control measures for communicable diseases that are endemic or epidemic in recruit populations, and, as required, provide training in military preventive medicine.

An input of one in each program every other year is anticipated. When additional specialists in general preventive medicine are required, training for the full 3-year program may be arranged in selected civilian institutions.

PREVENTIVE MEDICINE — OCCUPATIONAL MEDICINE

A 1-year in-plant program in this specialty has been established at the Norfolk Naval Shipyard, Portsmouth, Va. This training is at the third-year level and follows 2 years of formal training in a civilian institution under Navy sponsorship.

The curriculum of the residency is sufficiently flexible to assure well-rounded training in general industrial problems and experience in the particular problems of naval industrial establishments. Primary assignment is to the dispensary of the shipyard, with additional training and experience provided at the U.S. Naval Hospital, Portsmouth, Va., the U.S. Public Health Service Hospital, Norfolk, Va., the Naval Air Station and Naval Supply Center, Norfolk, and the Navy Fuel Depot, Craney Island, Va. Specific areas covered include hearing and sight conservation, industrial hygiene, environmental sanitation, industrial relations, as well as medical treatment.

The planned input into this program is one resident each year. When additional specialists in this field are required, training for the full 3-year program may be arranged in selected civilian institutions.

PSYCHIATRY

The planned program in psychiatry provides for a total of 33 residents in the 3 hospitals approved for this training, with an annual input of 11 at the first year level. The residents at the Naval Hospitals, Bethesda, Md. and Oakland, Calif., are assigned for the full 3 years, while those at Philadelphia at the present time complete 2 years and are then assigned to Bethesda for the third year. A third year program at Philadelphia is under development.

While primary emphasis is placed on the evaluation and treatment of psychiatric disorders, both inpatient and outpatient, the residents are also offered adequate training in basic sciences, psychopathology and the natural course of psychiatric illness, psychodynamics, neurology, neuroanatomy and neuropathology, medical and social psychology, psychiatric research, child psychiatry, forensic, occupational and military psychiatry, and the psychiatric aspects of general medical and surgical conditions. Both psychological and somatic treatment procedures are taught. The programs include collaborative work with clinical psychologists, trained social workers, occupational therapists, chaplains and both civilian and military courts.

Assignments at different stages of training are organized to provide gradually increasing therapeutic, administrative and teaching responsibility. The philosophy of the training is eclectic; there is no commitment to any one theoretical orientation. The programs are geared, within limits, to the needs, skills, and interests of the resident, and the major teaching emphasis is through supervision and conferences.

The clinical material available at the naval hospitals, and the affiliated institutions utilized for specialized training areas are as indicated:

Naval hospital	Average daily census	Admissions	Outpatient visits
Bethesda, Md.	90	946	10,601
Affiliations: 3 months, 2d year, at St. Elizabeth's Hospital, Washington, D.C., working with chronic psychotic patients; 3 months, 3d year, Child Guidance Clinic, Walter Reed Army Hospital Annex, for therapy with disturbed children.			
Oakland, Calif.	127	1,534	13,313
Affiliations: 3 months at Napa State Hospital, Imola, Calif., for additional training in somatic treatments, care of severely disturbed children and female patients, and management of the chronically ill; 9 months (half-time), at East Bay State Mental Hygiene Clinic, Berkeley, for additional outpatient experience with focus on total family situations.			
Philadelphia, Pa.	227	1,985	5,593
Affiliations: 20 weeks, part-time, 2d year, Albert Einstein Center, for further experience in child psychiatry; 3d year program being developed will include affiliation with Philadelphia State Hospital, for training in treatment and management of chronic psychiatric disorders.			

These training programs lead to Board eligibility in psychiatry. Training for Board eligibility in neurology is provided in selected civilian institutions under sponsorship of the Navy.

PULMONARY DISEASE

This is a 1-year residency program. To be eligible, the Bureau of Medicine and Surgery prefers that candidates be at least Board eligible in internal medicine prior to this subspecialization.

Planned annual input is two, with one each assigned to the following hospitals:

San Diego	
Facilities:	Beds
Chest service	107
Non-tbc chest	48
Pneumonia service	203
Cardiopulmonary laboratory.	
Thoracic surgery service, including inhalation therapy.	
Statistics:	Average census
Acute respiratory diseases	150
Non-tbc chest	40
Tuberculosis	50
	Admissions per month
Acute respiratory disease	50-250
Non-tbc chest	25
Average outpatient visits per month	220

St. Albans	
Facilities:	Beds
Chest service	160
Non-tbc chest and respiratory disease	29
Cardiopulmonary laboratory.	
Thoracic surgery service, including inhalation therapy.	
Statistics:	Average census
Tuberculosis	85
Non-tbc chest and respiratory diseases	27
	Admissions per month
Non-tbc chest and respiratory diseases	37
Average outpatient visits per month	215

Training is oriented to familiarize the resident with all phases of chest disease, both tuberculous and nontuberculous. Emphasis is placed on physical diagnosis, therapeutics, specialized treatment and diagnostic procedures, such as bronchograms, bronchoscopy and various biopsy techniques. While assigned to the cardiopulmonary laboratory, the resident performs complete function studies, a series of arterial punctures, bronchospirometries and diffusion capacity determinations, and assists in cardiac catheterizations. Instruction is of a degree to qualify a proficient resident to direct a cardiopulmonary laboratory of a general hospital upon completion of training.

RADIOLOGY

Five U.S. naval hospitals participate in the Integrated Residency Program in this specialty. In compliance with the requirements for a program of this type, there is a designated Director of the total program who supervises the teaching programs administered locally by Chiefs of Service and assures that assignments of the residents permit maximum utilization of material and facilities available.

The participating hospitals, with pertinent statistics are:

Naval hospital	No. of X-ray examinations	No. of radium or cobalt treatments	No. of superficial and orthovoltage treatment visits	No. of megavoltage treatment visits
Bethesda, Md.	47,802	41	322	5,025
Oakland, Cal.	50,598	23	1,733	1,300
Philadelphia, Pa.	72,615	11	1,663	0
San Diego, Cal.	158,414	92	161	14,603
St. Albans, N.Y.	56,339	31	254	2,069

The first 2 years of training consist mainly of diagnostic radiology with some radiologic physics, therapeutic radiology, and nuclear medicine. The third year is devoted primarily to the study of radiation therapy including the use of radium. Working in close conjunction with chemotherapists and hematologists, the residents become familiar with supervoltage and cobalt therapy equipment and its proper employment in the treatment of neoplasms and in addition, learn the indications for use of orthovoltage and superficial radiation therapy.

Residents from Philadelphia spend 2 months during the third year at the hospital of the University of Pennsylvania for their experience in radium and megavoltage therapy.

All residents are afforded the opportunity to attend the 2-month course in radiosotope techniques and nuclear medicine conducted at the U.S. Naval Medical School, National Naval Medical Center, Bethesda, Md., and when possible are permitted a period of study in radiation pathology at the Armed Forces Institute of Pathology, Washington, D.C.

A total of 33 residents is assigned to the 5 training programs, with an annual input of 11 at the first year level.

SURGERY

The 4-year general surgery residencies provide integrated and progressively graded clinical training. The rotational pattern affords experience in general surgery, plastic surgery, orthopaedics, neurosurgery, cardiothoracic surgery, proctology, urology, gynecology, otolaryngology, and pediatric surgery. The resident's responsibility for patient care and teaching, and his surgical experience are increased with his professional development. The fourth year is spent as senior resident. During this year he will assist in the training of interns and junior residents and will be responsible for supervising the admissions and management of the surgical patients, with the assistance and advice of the staff. He will be consulted on problems arising on wards and in clinics and will assume direct responsibility for major surgical procedures.

There are 8 approved general surgical training programs to which a total of 64 residents are assigned. Sixteen first year residents enter these residencies each year. In addition, one resident is usually assigned to one or two of the hospitals for the 1 year of general surgery in preparation for neurosurgery.

There is an abundance of clinical material, as evidenced by the following statistics:

Naval hospital	Average daily census	Admissions	Outpatient visits
Bethesda, Md.	323	4,689	40,042
Chelsea, Mass.	198	2,471	16,144
Great Lakes, Ill.	132	2,187	6,777
Oakland, Calif.	305	5,526	56,568
Philadelphia, Pa.	381	5,269	34,153
Portsmouth, Va.	621	8,010	82,741
San Diego, Calif.	694	11,714	81,074
St. Albans, N.Y.	182	3,233	8,322

THORACIC AND CARDIOVASCULAR SURGERY

With the establishment of the thoracic and cardiovascular surgery residency at the U.S. Naval Hospital, Bethesda, Md., the Navy now has three programs in this specialty. All three are fully approved for the required 2 years of formal training. A total of six residents is assigned, with an annual input of one at the first year level at each of the three hospitals. Candidates must be certified or eligible for examination by the American Board of Surgery.

Clinical material available for teaching purposes is as follows:

Naval hospital	Average daily census	Admissions	Outpatient visits
Bethesda, Md.	18	210	235
San Diego, Calif.	36	457	1,722
St. Albans, N.Y.	15	146	384

Each of the hospitals is a designated center: Bethesda for thoracic and cardiovascular surgery for the eastern United States; San Diego for the western United States, and St. Albans for chest diseases, including tuberculosis.

During the first year the resident is indoctrinated in the admission, preoperative study and

postoperative care of all cases on the service; he begins to perform endoscopy and lesser surgical procedures, gains experience in the cardiopulmonary and cardiac catheterization laboratories, and experimental dog surgery. At the second year level, he is responsible for management of the cardiothoracic wards and performs as principal the majority of cardiovascular surgery exclusive of open-heart work. In the open-heart cases he serves as first assistant and may, commensurate with individual ability, operate with staff assistance.

UROLOGY

The program in this specialty has an annual input of 6 first year residents and a total of 23 in the 5 inservice residencies at all times. The resident from the U.S. Naval Hospital, Oakland, Calif., is assigned to the Highland Alameda County Hospital for his third year, making the total under training of 24.

All of the residencies provide for 1 year of general surgery or internal medicine, at the choice of the individual, which is usually at the first-year level. It may, however, be at any year level except the senior year of the 4-year program.

The instruction is systematic and progressive, with training in diagnosis, therapy, cystoscopic examinations, and operative procedures under the supervision of the teaching staff. The services covered include adult male, adult female, pediatric, and the outpatient clinic.

The residents at Bethesda spend 4 months in the genitourinary section of the Armed Forces Institute of Pathology, Washington, D.C.; those from Philadelphia are assigned for 3 months to the Philadelphia General Hospital and 3 months at St. Christopher's Hospital for Children; and those from St. Albans spend 3 months at the Memorial Hospital for Cancer and Allied Diseases and 2 months at the Squire Urological Clinic at the Columbia Presbyterian Medical Center.

Clinical material available for teaching purposes at the naval hospitals is as follows:

Naval hospital	Average daily census	Admissions	Outpatient visits
Bethesda, Md.	31	442	7,668
Oakland, Calif.	20	780	6,913
Philadelphia, Pa.	33	685	6,460
San Diego, Calif.	59	1,956	26,184
St. Albans, N.Y.	28	643	4,029

OTHER

Residencies in specialties and subspecialties other than those described in this brochure are sponsored in civilian institutions, the number depending upon the needs of the Medical Department of the Navy.

HOSPITAL STATISTICS: 1963 - 64

Naval hospital	Number of outpatient visits	Number of patients admitted	Percent of autopsies	Number of deliveries	Daily average occupied beds
			Percent		
Bethesda, Md.	152,407	11,666	90	1,528	564
Chelsea, Mass.	108,389	7,322	76	1,013	332
Great Lakes, Ill.	151,488	12,290	83	1,316	442
Jacksonville, Fla.	189,997	9,166	80	1,872	324
Oakland, Calif.	204,241	15,010	89	1,937	647
Philadelphia, Pa.	159,134	12,114	63	1,324	866
Portsmouth, Va.	257,910	21,700	73	4,592	1,042
San Diego, Calif.	535,144	28,344	70	3,322	1,537
St. Albans, N.Y.	125,976	10,270	78	1,140	660

RESIDENCIES IN NAVAL ACTIVITIES INDICATING LENGTH IN YEARS

SPECIALTY	Bethesda		Chelsea	Great Lakes	Oakland	Phila-delphia	Ports-mouth, Va.	San Diego	St. Albans	Jackson-ville
	Medical School	Naval Hospital								
Anesthesiology[1]	.....	3	3	.....	3	3	.....	3	3	.....
Aerospace medicine	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cardiovascular diseases[2]	.....	1	.....	.....	.....	.....	.....	1	.....	.....
Dermatology	.....	.....	.....	.....	.....	[3]3	.....	3	.....	.....
Gastroenterology[4]	.....	.....	.....	.....	.....	1	.....	.....	.....	.....
General practice	.....	.....	.....	.....	.....	.....	.....	.....	.....	2
Internal medicine	.....	3	3	3	[5]3	3	3	3	3	.....
Neurosurgery[6]	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Obstetrics and gynecology	.....	3	3	3	3	3	3	3	3	.....
Ophthalmology[7]	.....	3	.....	.....	3	3	.....	3	.....	.....
Orthopaedics[8]	.....	4	4	.....	4	4	4	.....	.....	.....
Otolaryngology[9]	.....	4	.....	.....	4	4	.....	4	.....	.....
Pathology	4	.....	.....	.....	4	4	.....	4	4	.....
Pediatrics	.....	2	2	.....	2	2	2	2	.....	.....
Plastic surgery[10]	.....	2	.....	.....	.....	.....	.....	.....	.....	.....
Psychiatry	.....	3	.....	.....	3	[11]2	.....	.....	.....	.....
Pulmonary disease	.....	.....	.....	.....	.....	.....	.....	1	1	.....
Radiology[12]	.....	3	.....	.....	3	3	.....	3	3	.....
Surgery	.....	4	4	4	4	4	4	4	4	.....
Thoracic surgery	.....	2	.....	.....	.....	.....	.....	2	2	.....
Urology[13]	.....	4	.....	.....	*4	4	.....	4	4	.....

[1]*Anesthesiology:* All are 3-year programs; however, requests for a 2-year program will normally be approved if consistent with the needs of the service.

[2]*Aerospace medicine:* Three-year program — 6-month Flight Surgeon course is a prerequisite. First year of training must be an academic year in preventive medicine (aerospace medicine) in an approved civilian institution. Second and third years of the program are inservice residencies at the U.S. Naval Aerospace Medical Institute, U.S. Naval Aviation Medical Center, Pensacola, Fla.

[3]*Dermatology:* Includes 1 calendar year of outservice academic training in an institution approved for 3 years of training.

[4]*Gastroenterology:* Prerequisite — Board eligible in internal medicine. Program includes a 4-month course in basic Sciences in a civilian institution.

[5]*Internal medicine:* May include 1 year in clinical investigation at the Clinical Investigation Center, U.S. Naval Hospital, Oakland, Calif.

[6]*Neurosurgery:* One year inservice in general surgery followed by 4 years of neurosurgery in a selected civilian institution.

[7]*Ophthalmology:* May include the Lancaster course in ophthalmology for 3 months.

[8]*Orthopedic surgery:* Assignment to the fourth year of training in children's orthopedics in an affiliated civilian institution will be made by the Bureau of Medicine and Surgery through a matching plan implemented during the resident's second year of training.

[9]*Otolaryngology:* Includes 1 year of general surgery.

[10]*Plastic surgery:* Program consists of 1 year inservice followed by 1 year at Georgetown University Hospital, Washington, D.C.

[11]*Psychiatry:* The third year will be given at U.S. Naval Hospital, Bethesda, Md., pending development of the third year at Philadelphia.

[12]*Radiology:* All programs may include the short course in radioisotopes and nuclear medicine given at the U.S. Naval Medical School, National Naval Medical Center, Bethesda, Md., and a 3-month study period at the Armed Forces Institute of Pathology, Washington, D.C.

[13]*Urology:* First year may be in either general surgery or internal medicine. *Oakland — Includes 1 year at Highland Alameda Hospital, Oakland, Calif.

LOCATION MAP OF NAVAL HOSPITALS
offering
Residency Training

U.S. NAVAL HOSPITAL
NATIONAL NAVAL MEDICAL CENTER
BETHESDA, MD.

The metropolitan Bethesda area provides many cultural advantages, such as the National Symphony Orchestra, Washington Civic Opera, concerts and ballets at Constitution Hall and Lisner Auditorium, free military band concerts, the Watergate summer concerts and the Carter Baron Outdoor Summer Theatre; galleries such as the National Gallery of Art and the Corcoran Art Gallery; two year-round legitimate theatres; events such as the Cherry Blossom Festival and the National Capital Flower Show; lectures at the Library of Congress; regattas on the Potomac; the Rock Creek Nature Center; free access of public buildings and parks of the Nation's Capital. Also, Bethesda is within easy driving distance of the Winchester Apple Blossom Festival, the Gettysburg Battlefields, Historic Williamsburg, the Skyline Drive and many other beautiful areas.

The residential areas of Bethesda, Rockville, Wheaton, and Silver Spring surround the Medical Center affording modern housing and community life within easy commuting distance.

U.S. NAVAL HOSPITAL
GREAT LAKES, ILL.

The city of Chicago readily accessible by fast commuter trains or expressways, offers many cultural, social, educational, and professional opportunities.

Among these are the Chicago Civic Opera, the Symphony Orchestra, the Field Museum of Natural History, the Adler Planetarium, legitimate theatres, excellent private and public schools, as well as the well-known medical schools and teaching centers. There are many sports activities, many restaurants noted for their distinctive cuisine, and excellent department stores and other shopping facilities.

The offices of the American Medical Association, the American Hospital Association and the American College of Surgeons are located in Chicago. Partly as a result of this and partly due to the large convention facilities available, many national medical meetings are held in the city each year.

U.S. NAVAL HOSPITAL
CHELSEA, MASS.

Boston is recognized as a cultural center, as well as a medical center. It is the home of the famous Boston Pops Orchestra, Horticultural Hall, several museums and science buildings and legitimate theaters. It is steeped in the history of early colonial America and there are many attractions for tourists and students of early history. Many sports activities are available at Boston Garden and Massachusetts Armory and only a short drive away are fashionable Newport, R.I. and the beach resort area of Cape Cod.

U.S. NAVAL HOSPITAL
JACKSONVILLE, FLA.

The city of Jacksonville, with a population of 200,000 (Duval County approximately 501,300) is a thriving, progressive metropolis. There are numerous large community shopping areas within 3 to 4 miles of the main gate of the naval hospital, and suitable housing is readily available, whether by rental or purchase. Within easy driving distance are the numerous beautiful Florida beaches and such tourist attractions as Silver Springs, St. Augustine, Daytona Beach and other resort areas. Spectator sports events in the immediate area include a number of college football games, basketball, championship golf, etc., climaxed by the annual postseason Gator Bowl football game.

U.S. NAVAL HOSPITAL OAKLAND, CALIF.

"Oak Knoll" lies on the western slope of the range of wooded hills ringing the eastern shore of San Francisco Bay. The natural beauty of the bay area, with its equable yet invigorating climate, is justly famous. Cultural advantages to be stressed which are ever at hand in the several urban centers include music, theatre, great universities and libraries, museums, and not to be ignored, fine restaurants. Within several hours of driving lie matchless outdoor recreational areas like Yosemite, Shasta, Mount Lassen, Carmel, and Squaw Valley.

Nearby naval activities include two air stations, two large shipyards, including one engaged in the construction of nuclear submarines, and one large naval station.

U.S. NAVAL HOSPITAL PORTSMOUTH, VA.

Portsmouth is a pleasant, friendly city of 120,000 and Norfolk is accessible by tunnel. Living costs in the area are lower than the national average. The weather is moderate, tempered by the nearness of the ocean. Recreational opportunities include boating, fishing, surf bathing and hunting (small game and deer). The well known resort area of Virginia Beach is 23 miles from the naval hospital and is readily reached by bus or private automobile. Excellent year-round housing is available and many Navy families choose to live in this area. Historic Williamsburg and Yorktown are but 45 minutes' drive and the largest ship-building area in the world is but 30 minutes away at Newport News.

U.S. NAVAL HOSPITAL PHILADELPHIA, PA.

Philadelphia is a city steeped in history and abounding in cultural and professional opportunities. Independence Hall remains one of the Nation's most famous historical shrines, with the home of Betsy Ross nearby. Also in the city is Carpenter's Hall where the First Continental Congress met, the first hospital, the first library, and the University founded by Benjamin Franklin.

Of cultural interest there are the Academy of Music, Robin Hood Dell, the Philadelphia Symphony Orchestra, the Museum of Art, the Franklin Institute, the Fels Planetarium, the Academy of Natural Sciences, Rodin Museum, and the Philadelphia Free Library.

Within driving distance are the Gettysburg Battlefield, Valley Forge, the Pennsylvania Dutch country, the Pocono Mountain area, and to the east the Atlantic Ocean beaches.

U.S. NAVAL HOSPITAL SAN DIEGO, CALIF.

The city of San Diego and its suburbs lie on a series of gentle slopes and mesas between the Pacific Ocean and the Laguna and Cuyamaca Mountains. It is the third largest city in California, located 15 miles north of the Mexican border, 120 miles south of Los Angeles, and just 5 hours' drive from Las Vegas, Nev.

One of the most famous zoos in the country is in Balboa Park. There are many cultural opportunities such as the San Diego Civic Light Opera Association, the San Diego Symphony Orchestra, San Diego Community Theatre, La Jolla Playhouse and the Fine Arts Gallery.

The climate is temperate, and sports such as water skiing and skindiving, deep sea and fresh water fishing are enjoyed year-round. Winter sports, such as skiing, are also available in the mountains which are 2½ hours driving distance from the hospital.

U.S. NAVAL HOSPITAL ST. ALBANS, N. Y.

The heart of Manhattan is less than a 45-minute drive from the hospital, only 30 minutes by fast, efficient, public transportation. The truly staggering variety of recreational, educational, and cultural facilities, plus the many attractions in the performing arts offered in this, the largest and most sophisticated city on the American continent, hardly requires further description or elaboration.

AEROSPACE MEDICINE (FLIGHT SURGEON)

A limited number of medical officers each year are afforded the opportunity for specialized training in aerospace medicine.

Medical officers selected for such training are sent to the U.S. Naval Aerospace Medical Institute at the Naval Aviation Medical Center, Pensacola, Fla., for a course of instruction lasting about 6 months, and, upon successful completion of the course, they are designated naval flight surgeons.

The curriculum is divided into two parts. The first, approximately 4 months, is a good general review of all medical subjects, with emphasis placed on a few subjects which are more important in aerospace medicine, i.e., ophthalmology, otolaryngology, psychiatry, cardiology, and physiology — both respiratory and cardiovascular. The second phase, approximately 2 months, is devoted to flight training. This training should qualify one to solo aircraft, although flight surgeons and student flight surgeons will not be required to do so. Medical officers designated as flight surgeons and ordered to duty involving flying are entitled to additional pay while so serving.

Duty assignments of flight surgeons are to naval air stations, to various type squadrons — both Navy and Marine — to aircraft carriers, etc. Station hospitals on major naval air stations provide professional opportunities in all respects similar to those in smaller naval hospitals. In addition, there is opportunity for considerable research in aerospace medicine, dealing with such problems as selection and training of pilots, disorientation, "g" forces, oxygen supply, protective equipment, escape from high speed, high flying aircraft, etc.

After completing a tour of duty with an operational unit, flight surgeons may apply for residency training in various clinical fields or for residency training in aerospace medicine leading to certification in this specialty.

SUBMARINE MEDICINE

The School of Submarine Medicine convenes twice a year at the U.S. Naval Submarine Medical Center, Submarine Base, New London, Conn. Each class is approximately 6 months in duration. The curriculum includes: Basic submarine training, underwater physiology, hyperbaric physiology, psychiatry, dentistry, toxicology, environmental physiology, and radiobiology. Successful completion of the course may be creditable toward certification by the American Board of Internal Medicine or the American Board of Preventive Medicine. Upon completion of this course of instruction, students are assigned to a tour of operational duty in the submarine force. During this tour, the student prepares a thesis and passes a comprehensive examination of submarine and diving medicine and is then designated a "Qualified Submarine Medical Officer."

By serving as a ship's medical officer on board a Polaris submarine or as a squadron medical officer in a submarine squadron, the submarine medical officer not only takes care of the usual health problems of the submarine personnel, but he also develops an awareness of the potential health and safety hazards which exist aboard submarines. Having determined that a health problem may exist, he communicates his findings to the Submarine Medical Center, or is transferred to the center so that he can thoroughly investigate the problem and develop appropriate protective measures for the operating submarine force. As a consequence of this procedure, the Submarine Medical Center has been instrumental in the development of most of the health protection programs in existence on submarines including atmospheric and environmental controls, noise reduction and ear protection, adequate light and vision conservation, and shielding design and protection from ionizing radiation, to name a few.

After completing a tour of duty with an operational unit, the medical officer may apply for postgraduate training in various fields. He may prepare for certification in preventive medicine and obtain a graduate degree by attending one of the Schools of Public Health or Industrial Medicine. He may prepare himself for a career in research and obtain a graduate degree in diving physiology or radiobiology by attending

one of the appropriate civilian universities. This course of action would be followed by duty at naval research laboratories and with the operational forces. If he prefers a clinical specialty, he may obtain a residency in any of the recognized clinical specialties.

AMPHIBIOUS AND MARINE CORPS MEDICINE

Amphibious and Marine Corps medicine are recognized as military medical specialties, within the Navy, and offer most challenging experiences. These specialties provide valuable training in the many facets of field medicine to provide rapid and efficient medical care and life-saving surgery under field conditions; management, control, and evacuation of mass casualties; preventive medicine and field sanitation; and medical logistics. Duty in field medical practice enables medical officers better to understand the problems that occur among military personnel. Medical officers with this background are strongly encouraged to apply for residency training in clinical specialties of their choice.

NUCLEAR MEDICINE

There are two aspects of nuclear medicine; that related to the clinical specialty of radiology, and that concerned with the fields of nuclear propulsion, radiological safety and special weapons effects. The clinical radiology programs have been described elsewhere in this brochure. The military nuclear medicine program is designed to meet the need for specially trained medical officers who will serve aboard nuclear submarines, nuclear carriers, the Antarctic Research Expedition, and at the Naval Radiation Defense Laboratory, San Francisco, Calif. The training consists of the academic year in radiobiology at the University of Rochester, preceded by 3 months of intensive review courses in physics and mathematics. An occasional medical officer may be sponsored for additional training leading to the Ph.D. degree. In general, applicants for this specialized training have qualified as aviation or submarine medical officers; however, this is not a prerequisite.

RESEARCH

The Navy offers medical officer billets for careers in military medical research. These opportunities embrace basic biomedical and operational research. Basic research is conducted in most of the medical research installations, usually in support of operational programs. Operational research is carried on in facilities near or in operational situations and includes, among others, the fields of aerospace medicine and bioastronautics; submarine medicine and underwater physiology (SEALAB); environmental and preventive medicine; general medicine and surgery; dental and oral medicine; the defensive aspects of nuclear, chemical and biological warfare; and amphibious and field medicine especially for the Marine Corps. Clinical investigation is supported in naval hospitals. Continuing geomedical research in diseases in the tropics is conducted in Naval Medical Research Units in the Near East (Cairo, U.A.R.) and the Far East (Taiwan) as well as in central United States (Great Lakes).

The officer billets for medical research careers are distributed in strategic locations throughout the world, including 15 major inservice laboratories, triservice activities, and in facilities located in commands where the principal purpose is not that of research. Assignments are made also to laboratories of the other military services and Governmental agencies. Reserve officers on active duty, if properly qualified in research, may be assigned to naval research facilities. Training in experimental design, technics, instrumentation, interpretation of results, etc. is integrated into the programs.

It is the policy of the medical department to provide a satisfying career in research for highly motivated officers who have special aptitudes and qualifications.

ELIGIBILITY REQUIREMENTS

All candidates must be commissioned in the U.S. Naval Reserve or Regular Navy prior to reporting for training. Applicants for residency training in a clinical specialty must hold a commission in the Regular Navy, or agree to apply

for and accept such commission if tendered and if approved for the residency. Trainees in the military medical specialties may be either in the Naval Reserve or Regular Navy.

Basic requirements are:

(1) Be a graduate of a medical school listed as approved by the Council on Medical Education and Hospitals of the American Medical Association.

(2) Qualification of graduates of foreign medical schools may be established through satisfactory completion of the American Medical Qualification Examination administered by the Educational Council for Foreign Medical Graduates, 1633 Central Street, Evanston, Ill., or possession of a license to practice in a State of the United States.

(3) Be a citizen of the United States.

(4) Meet the prescribed physical standards for a commission in the Navy Medical Corps. (Candidates for Aerospace Medicine (Flight Surgeon) must have visual acuity not less than 20/30 in each eye, unaided by glasses, in order to qualify for solo flight during basic training. Failure to meet this requirement does not disqualify for other indoctrinal flight training, leading to the designation of flight surgeon.)

APPLICATION FOR COMMISSION

REGULAR NAVY OR NAVAL RESERVE: Normally 4 to 6 months are required to process application for Regular Navy; 3 to 4 months for Reserve commission. Therefore, applicants for training in a military medical specialty should initiate application for commission at the time of application for training; applicants for residency training may defer application for commission until notified of approval for training.

CIVILIANS: If approved for training requested, contact any of the continental U.S. Naval Hospitals or any of the recruiting stations listed on page 21 of this brochure.

INACTIVE RESERVE OFFICERS: If approved for training requested, contact nearest recruiting station as listed on page 21 of this brochure to institute transfer to Regular Navy and active duty.

ACTIVE DUTY RESERVE OFFICERS: Forward official request for augmentation into Regular Navy to Chief of Naval Personnel in accordance with BUPERS MANUAL, Article C 1104A.

WHERE TO APPLY

Applications may be submitted by visiting any one of the continental naval hospitals or any of the recruiting stations listed below:

CONTINENTAL U.S. NAVAL HOSPITALS

CALIFORNIA
- Camp Pendleton
- Oakland
- San Diego

FLORIDA
- Jacksonville
- Key West
- Pensacola

ILLINOIS
- Great Lakes

MARYLAND
- Annapolis
- Bethesda

MASSACHUSETTS
- Chelsea

NEW HAMPSHIRE
- Portsmouth

NEW YORK
- St. Albans

NORTH CAROLINA
- Camp Lejeune

PENNSYLVANIA
- Philadelphia

RHODE ISLAND
- Newport

SOUTH CAROLINA
- Beaufort
- Charleston

TENNESSEE
- Memphis

TEXAS
- Corpus Christi

VIRGINIA
- Portsmouth
- Quantico

WASHINGTON
- Bremerton

U.S. NAVAL RECRUITING STATIONS

STATION	STREET ADDRESS	PHONE
ALBANY, N.Y., 12207	Post Office Building, Broadway	472–4424
ALBUQUERQUE, N. MEX., 87103	U.S. Courthouse Building, 5th and Gold Sts.	247–0311
ASHLAND, KY., 41101	Ventura Hotel, 321 13th St.	324–5159
BIRMINGHAM, ALA., 35203	2121 8th North	325–3840
BOSTON, MASS., 02210	560 Atlantic Ave.	CA3–2906
BUFFALO, N.Y., 14203	1021 Main St.	842–2310
CHICAGO, ILL., 60605	536 South Clark St.	828–6611
CLEVELAND, OHIO, 44114	CTS Building, 1404 East Ninth St.	241–7900
COLUMBIA, S.C., 29201	Court House, 1100 Laurel St.	AL2–5639
COLUMBUS, OHIO, 43215	74 East Gay St.	221–6411
DALLAS, TEX., 75202	Wholesale Merchants Bldg., 912 Commerce	RI 9–2981
DENVER, COLO., 80202	New Custom House, 19th and California Sts.	297–3274
DES MOINES, IOWA, 50309	Federal Office Building, 5th and Court Sts.	284–4322
DETROIT, MICH., 48226	Federal Building, Fort and Shelby Sts.	226–7795
HOUSTON, TEX., 77031	VA Hospital, Post Office Box 17085	RI7–6110
INDIANAPOLIS, IND., 46204	215 East New York St.	ME3–8893
JACKSONVILLE, FLA., 32202	537 Riverside Ave.	356–3076
KANSAS CITY, MO., 64108	2420 Broadway	BA1–7000
LITTLE ROCK, ARK., 72201	Old Post Office Building, 2d and Center Sts.	FR2–4361
LOS ANGELES, CALIF., 90017	759 South Figueroa St.	688–2747
LOUISVILLE, KY., 40202	Post Office Building, 6th and Broadway	582–5176
MACON, GA., 31201	Schwartz Building, 653-63 Second St.	SH6–3566
MILWAUKEE, WIS., 53202	611 North Broadway	BR2–8600
MINNEAPOLIS, MINN., 55401	Federal Building, 2d and Washington Avenues, South	334–2171
NASHVILLE, TENN., 37203	U.S. Court House, 801 Broadway	242–8321
NEW ORLEANS, LA., 70116	U.S. Customs House, 423 Canal St.	527–6212
NEW YORK, N.Y., 10011	207 West 24th St.	WA4–5000
OKLAHOMA CITY, OKLA., 73102	American General Building, 621 North Robinson	CE6–2311
OMAHA, NEB., 68111	Naval Personnel Center, 30th and Fort Sts., Building 19, South	221–7311
PHILADELPHIA, PA,, 19107	Blackburn Building, 13 South 13th St.	597–4680
PITTSBURGH, PA., 15219	Old Post Office Building, 300 Smithfield St.	644–5887
PORTLAND, OREG,, 97204	Pioneer Post Office, 520 Southwest Morrison St.	226–3361
RALEIGH, N.C., 27602	Fayetteville and Martin Sts., Post Office Box 2506	TE3–6634
RICHMOND, VA., 23219	1 East Broad St.	649–3611
SAN FRANCISCO, CALIF., 94102	Federal Office Building, Leavenworth and Fulton Sts.	MA1–3828
SEATTLE, WASH., 98121	2222 2d Ave.	MA4–4337
ST. LOUIS, MO., 63102	Federal Building, 208 North Broadway	MA2–5261
WASHINGTON, D.C., 20004	631 E St. NW	393–2168 or OX6–2268

APPLICATION FOR TRAINING

FOR RESIDENCY TRAINING

Civilians and Inactive Reserve personnel should complete the tear-out application form and forward it to the Chief, Bureau of Medicine and Surgery, Department of the Navy, Washington, D.C., 20390.

Active Duty Naval Medical Officers should submit official request to the Chief, Bureau of Medicine and Surgery, via chain of command, in accordance with BUMED INSTRUCTION 1520.10 Series. (See sample letter.)

GENERAL INSTRUCTIONS: State clearly the exact training desired, total number of years of formal training required for Board eligibility and the approximate commencement date desired. At least three choices of naval hospitals should be listed for inservice residencies (if three or more programs are offered). The tear-out application form should be modified appropriately for training in civilian institutions. In selection of civilian institutions, the applicant may either make *tentative* arrangements with the institution(s) of his choice, subject to selection by the Bureau of Medicine and Surgery, or he may apply for training in an institution to be determined. In any event, if approved, final enrollment arrangements will be made by the Bureau of Medicine and Surgery.

DEADLINE FOR RECEIPT IN THE BUREAU OF MEDICINE AND SURGERY OF APPLICATIONS FOR RESIDENCY TRAINING IN NAVAL HOSPITALS AND CIVILIAN INSTITUTIONS IS 1 JULY OF YEAR PRECEDING DESIRED CONVENING DATE.

Applicants will be notified of selection or nonselection in late July or early August. Those selected will be requested to indicate their acceptance of the training offered by executing and returning the required service agreement within 20 days after receipt of letter of notification.

FOR MILITARY MEDICAL SPECIALTY COURSES

Civilians and Inactive Reserve Officers may submit letter of application to Chief, Bureau of Medicine and Surgery, Department of the Navy, Washington, D.C., 20390, indicating course of instruction and desired convening date, as listed below, and statement: "If approved for this course of instruction, I agree to remain on active duty for 6 months in addition to basic obligation or 2 years after completion of the course, whichever is longer." *Civilians* should initiate action for commission *at the same time.*

Active Duty Medical Officers should apply in accordance with BUMEDINSTRUCTION 1520.3 Series.

Applications should be submitted at least 6 months in advance of the desired convening date, as listed:

Aerospace Medicine
(Flight Surgeon) .....July, October, January.
Submarine Medicine ....July, January.
Amphibious and Marine
Corps Medicine .....Schedule as required.

Applications for the nuclear medicine program (academic) must be submitted in accordance with instructions for residency training, prior to 1 July of year preceding convening of course in June of each year. Commission in Regular Navy is required for this sponsored training in a civilian institution.

Physicians who possess special skills and interests in aspects of research that can be related to the Navy's research program, should write or visit the Bureau of Medicine and Surgery (codes 71 and 31) for evaluation of these qualifications, discussion of duty assignments and instructions for obtaining commission and active duty orders.

OBLIGATED SERVICE

RESIDENCY TRAINING IN NAVAL HOSPITALS — 1 day for each day of training received.

TRAINING IN CIVILIAN INSTITUTIONS — 2 days for each day of training received under 6 months in duration; 2 years' obligation for training received that is 6 to 12 months in duration; and for longer periods of training, 2 years of obligation for the first year of training received and year for year and/or day for day thereafter.

NOTE: Prior obligated service cannot be served concurrently with training incurred obligation, nor while in training, except the basic 2-year obligation and up to 2 of the 3-year senior medical student obligation.

MILITARY MEDICAL SPECIALTY COURSES:

Aerospace Medicine (Flight Surgeon) and Submarine Medicine — 6 months in addition to basic obligation or 2 years after completion of the course, whichever is longer.

Amphibious and Marine Corps Medicine — No obligation required.

Nuclear Medicine (academic) — Same as training in civilian institutions.

ALL INDIVIDUALS SELECTED FOR TRAINING WILL BE REQUIRED TO SIGN A MEDICAL OFFICER SERVICE TRAINING AGREEMENT (NAVMED–1458) WHEN NOTIFIED OF APPROVAL.

Sample Application
(Use appropriate letterhead)

(Date)

From: LT John J. DOE, MC, USN, 000000/2100
To: Chief, Bureau of Medicine and Surgery (Code 316)
Via: (Appropriate chain of command)

Subj: Residency training in internal medicine; request for

Ref: (a) BUMEDINST 1520.10 Series
(b) BUMEDINST 1520.7 Series

1. It is requested that I be assigned to 3 years of duty as a resident in internal medicine, to begin at the first-year level.

2. If approved for this training, my choice of naval hospitals, listed in order of preference, is:

1. U. S. Naval Hospital, Chelsea, Massachusetts
2. U. S. Naval Hospital, Great Lakes, Illinois
3. U. S. Naval Hospital, Portsmouth, Virginia

NOTE: If program is mixed inservice and outservice, indicate choice (in 1,2,3 order as above) of civilian institutions in this space.

3. I agree to execute the service agreement appropriate to this training when notified of my approval. I understand that if I desire to terminate training prior to completion of the program, I may do so by requesting permission from the Bureau of Medicine and Surgery through channels. I further understand that such training will continue as long as I perform my duties in a satisfactory manner and necessary progress is maintained. If however, my performance is not satisfactory, my training may be terminated at any time by the Bureau based on recommendations from the commanding officer of the hospital to which I am assigned. (Chief of Service, when assigned to a civilian institution).

4. (THIS PARAGRAPH APPLIES TO RESERVE OFFICERS ONLY). If approved for the requested residency training, I will make application for a commission in the Medical Corps of the Regular Navy and will accept such commission when tendered.

(Full Name)

SAMPLE

DEPARTMENT OF THE NAVY
Bureau of Medicine and Surgery
Washington, D.C. 20390

Attach Photograph

Date: _____.

1. Application for:
   a. Residency training in _____ to begin _____.
   b. I have had _____ previous training in this specialty
      (No. 1 year, etc.)
2. Name in full _____.
3. Address _____.
   (Street No.) (State) (City) (Phone)
4. Date of birth _____. Birthplace _____. Citizenship _____.
5. Height _____. Weight _____. Sex _____. Marital status _____.
6. Physical disability, if any _____.
7. Have you had any serious illnesses in past 5 years? _____.
8. My choice of naval hospitals in order of preference:
   First: _____
   Second: _____
   Third: _____
9. I understand that my approval for the above training will be contingent upon my qualifying for and accepting a commission in the Regular Navy. NOTE: This is an application for consideration for residency training *only*. Application for Regular commission as a medical officer in the Navy must be made at U.S. Navy recruiting stations.
10. a. College _____, 19___ to 19___ Degree: _____
    _____, 19___ to 19___ Degree: _____
    b. Medical school _____, 19___ to 19___ Degree: _____
    _____, 19___ to 19___ Degree: _____
    c. Internship _____ 19___ to _____ 19___
    (Month) (Month)
    _____ 19___ to _____ 19___
    (Month) (Month)
    d. Subsequent hospital experience _____ 19___ to _____ 19___
    (Month) (Month)
    _____ 19___ to _____ 19___
    (Month) (Month)
    e. Graduate school _____ 19___ to _____ 19___
    (Month) (Month)

11. Professional practice (place and dates) _____

_____

_____

12. Are you licensed to practice medicine? _____ What State? _____

13. Describe educational and scientific work in which you have been engaged since graduation

_____

_____

14. Graduate work completed: (Institution and dates) _____

_____

15. Previous military service _____

_____

16. Present military or draft status _____

_____

17. Foreign languages _____

18. List publications _____

_____

19. You should obtain the documents and letters of recommendations listed below and have them forwarded to the Bureau of Medicine and Surgery to be used by the Bureau's Professional Advisory Board in considering your request.

    Transcript from medical school with relative class standing.

    Recommendation from your internship and/or residency hospital, concerning your performance during internship and residency training.

    Recommendation from Chief of a service under whom you have recently served concerning your professional and personal qualifications.

20. Please list two other persons (not relatives) to whom inquiries about you may be directed.

    a. _____
    (Name) (Address) (Occupation) (Connection)

    b. _____
    (Name) (Address) (Occupation) (Connection)

21. In return for training in the Navy or under Navy sponsorship, an additional period of active service is required which is usually equal to the period of time spent in training (for sponsored training in a civilian institution add one more year). If approved for the training you have requested, you will be required to sign an agreement on which this additional required service is indicated.

(Signed) _____

NAVMED–1458 (1-65)

MEDICAL OFFICER SERVICE TRAINING AGREEMENT

√	Type of training	Training period	Additional obligated service required
	I. Residency training in naval hospital.	One day or more	One day for each day of training received.
	II. Training in civilian institution (to include temporary periods as a part of a naval hospital training program, if so indicated under special provisions below).	Less than 6 months	Two days for each day of training received.
		Six to 12 months	Two years.
		More than 1 year	Two years for first year of training received, and year for year and/or day for day thereafter.
	III. Aerospace medicine (complete course qualifies for designation of aviation medical examiner or flight surgeon).	Less than complete course	One day for each day of training received.
		Complete course	Six months in addition to basic obligation or 2 years after completion of course, whichever is longer.
	IV. Submarine medicine	Less than complete course	One day for each day of training received.
		Complete course	Six months in addition to basic obligation or 2 years after completion of course, whichever is longer.

V. General provisions:

A. BASIC OBLIGATION: Two years after internship in current tour unless obligated for a longer period. Basic obligation can be served while in training. Maximum of 2 years of obligation for senior medical student program can be satisfied while in training.

B. ADDITIONAL OBLIGATION: Shall be served after basic obligation and training are completed.

VI. Special provisions:

I understand the above. I agree to serve the amounts of active duty indicated or return for the training I may receive in the type indicated by a check mark above.

Signature: | Date:

Name (Type or print in ink):

SERVICE BENEFITS

From the purely professional standpoint, the practice of medicine and surgery differs from civilian practice only in its environmental setting. Superb medical facilities and equipment as well as assistance by highly skilled medical and administrative personnel are available to the naval medical officer; his choice of treatment is not limited by economic considerations and he enjoys the military physician's procedural freedom.

The personal benefits afforded the individual officer and his family are numerous. Among them are financial security, substantial retirement benefits, 30 days of vacation each year, medical care for himself and family and the opportunity of world travel. For the physician, as well as for his family, military life holds advantages often denied in private practice, above and beyond professional considerations. For himself, there is a real family life, holidays and annual vacations without loss of income or patient's good will. Wholesome recreation — swimming pools, hobbyshops, tennis courses, golf courses, gymnasiums, little theatre groups — is available for the family to enjoy together.

The pay and allowances vary in accordance with the officer's grade, length of service and marital status. Periodic pay increases accrue, generally after 2-year periods of service, in addition to increases resulting from promotion.

U.S. NAVY

Pay . . . Benefits, Retirement

APPROXIMATE ANNUAL INCOME

	Married or with dependents	
	Usual minimum	Usual maximum
LIEUTENANT (during internship)	$8,917.56	$8,917.56
LIEUTENANT (not in internship)	*10,117.56	11,300.76
LIEUTENANT COMMANDER	*11,743.56	13,919.16
COMMANDER	*14,392.56	17,810.16
CAPTAIN	*19,150.56	20,960.16
REAR ADMIRAL — LOWER HALF	*23,289.36	23,289.36
REAR ADMIRAL — UPPER HALF	*25,701.36	25,701.36
VICE ADMIRAL	*28,220.96	28, 220.96

* This includes incentive pay which medical officers receive at the rate of $100 a month during the first 2 years of active service. This amount is increased to $150 a month during the 3d to 6th years inclusive, $250 a month during the 7th to 10th years inclusive, and $350 a month for those who have completed 10 or more years of active service.

Medical officers in operational duty assignments in aerospace medicine or submarine medicine are entitled to additional pay, ranging from $145 a month to $245 a month depending on length of service and rank.

Navy medical officers are also entitled to medical care for themselves and dependents; retirement benefits without contribution by the officer are generous; he has no professional expenses connected with his practice; and he is entitled to 30 days' paid vacation per year.

☆U. S. GOVERNMENT PRINTING OFFICE: 1966 — O 205-511

Antarctic Research Expedition

The U.S. Navy has the annual task of supporting a long-range scientific program in Antarctica which is under the auspices of the National Science Foundation. This program is known as the U.S. Antarctic Research Expedition.

The Navy supports five bases in Antarctica (Pole, Byrd, McMurdo Sound, Cape Hallett, and Eights Station) with a medical officer at each of the first four bases (Flight Surgeon at McMurdo Air Facility). Personnel at these bases vary from 15 to 100 men, including 3 to 15 civilian scientists who investigate not only earth sciences such as weather, geology, seismology, and glaciology, but also the biological and medical sciences. Antarctic doctors are invited and encouraged during their tour of duty, to study the medical problems of isolation, acclimatization, and cold weather physiology.

The training phase for medical officers begins in the late spring or early summer at selected naval activities. Special training is given in orthopaedics, general surgery, anesthesiology, EENT, psychiatry, emergency dental care, cold weather medicine, hygiene and sanitation, and survival in the polar regions.

In the fall after training has been completed, the party embarks for Christchurch, New Zealand, and then to Antarctica. Individuals remain at their respective bases in Antarctica until November or December of the following year, when they return to the continental United States for reassignment, usually to a duty station of their choice from among available billets.

As the medical officers at Pole, Byrd, and Hallet bases are also officers in charge of their stations, they receive training in naval jurisprudence, communications, administration, morale functions and leadership.

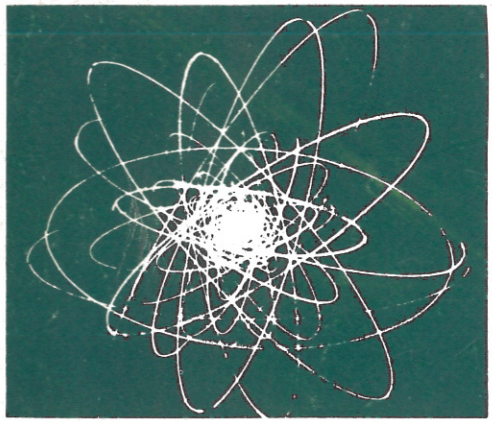
The ideal candidate is a medical officer qualified in general practice, of rugged physique, who likes the out-of-doors and has a taste for adventure, an inquiring mind adaptable to research, a stable personality, and deep rooted inner resources. A successful candidate, however, might not necessarily excel in all of these qualifications.

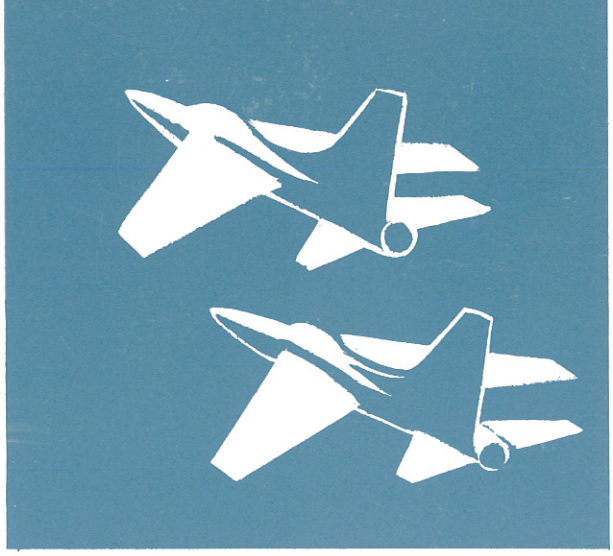
This is an opportunity to broaden one's knowledge of men and medicine and to become acquainted with the world's last frontier, the strangest, most rugged, most beautiful and most fascinating place on earth.

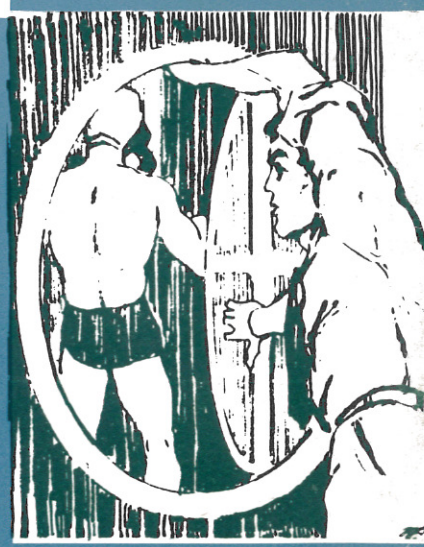
Should you desire to be considered for duty with this expedition, please contact this Bureau, attention Code 31. If additional information is desired, please let us know.

BUREAU OF MEDICINE AND SURGERY
DEPARTMENT OF THE NAVY
WASHINGTON, D.C. 20390

NAVMED P-5092 (1966)







DEPARTMENT OF THE NAVY
BUREAU OF MEDICINE AND SURGERY